

#### Item 1

One-Month Rental of an Airborne Water Vapor/Liquid Water Radiometer that shall meet the following specifications:

- Measures precipitable water vapor (PWV) and liquid water path (LWP) at low concentrations using a G-Band radiometer
- Optionally measures PWV and LWP at higher concentrations using a W-Band radiometer
- G-Band radiometer frequency = 183.31  $\pm 1$ ,  $\pm 3$ ,  $\pm 7$  and  $\pm 14$  GHz and bandwidths = 0.5 (1), 1.0 (3), 1.4 (7) and 2.0 (14) GHz
- In W-band configuration: frequency = 91.6  $\pm 1$ ,  $\pm 3$ ,  $\pm 7$  and  $\pm 14$  GHz and bandwidths = 0.5 (1), 1.0 (3), 1.4 (7) and 2.0 (14) GHz
- Delta T (G-band): 0.2 K @ 200 ms integration (5 Hz data rate)
- TRec (G-band): 1750 K (1), 1610 K (3), 1600 K (7) and 2170 K (14)
- Allan STD (G-band): 0.05 K @ 1000 seconds
- Data Rate: 0.1-20 Hz with periodic calibration using temperature controlled surface
- Antenna: 4" offset reflector
- Transmits in the zenith direction with 2 degree G-band (4 degree W-band) beamwidth
- Radome: Surface matched TPX window
- Weight: 22 lb (38 lb with canister)
- Power: 28 W @ 115 VAC, < 130 W @ 28 VDC
- Fits in standard "PMS" cloud-probe canister and uses the same connecting wires to cabin-mounted control and data acquisition equipment
- System includes electronic controller box and computer with software to operate instrument and derive PWV and LWP from the four channels of measured brightness temperatures.
- Company to install probe and instruct NASA personnel on its operation and data analysis
- Probe to be provided to NASA no later than 8/12/2014 and will be returned to the company on or before 10/10/2014

#### Item 2

Option: Second month of rental of radiometer (The Government will determine whether it is in the best interest of the Government to rent the equipment for an additional month or return the equipment to the vendor.)

#### Item 3

##### Shipping

NOTE: The Governments preferred method of shipping is FOB Destination.